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ABSTRACT

Fifty-five first grade students from low socioeconomic neighborhoods who lacked understanding of fundamental concepts frequently found in preschool and primary instructional materials and who possessed a low self-concept and limited experience were divided into a control and two experimental groups. The Boehm Test of Basic Concepts (BTBC) was administered in October and June. Materials and methods usually found in the district's first grade classrooms were used with all groups. Additionally, in the two experimental groups, teachers used an interpretation of test results as a guide for the remedial instruction, a counselor assisted the students according to their needs, and filmstrips and other materials supplemented the usual classroom materials. One experimental group was also taken on field trips related to situations in their classroom reading materials. A close relationship was found between reading level and BTBC scores, and the number of experimental group children who reached the higher reading levels and achieved higher BTBC posttest scores surpassed the number of control group children who did so. Complete statistical data; the project's behavioral objectives, conclusions, and recommendations; a bibliography; and a list of the classroom materials used are included. (TO)

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REGION VI

CENTRAL ARKANSAS EDUCATION CENTER
Markham and Izard Streets
Little Rock, Arkansas 72201

MINI-GRANT PROJECT

TITLE: THE DETECTION AND REMEDIATION OF DEFICIENCIES IN VERBAL UNDERSTANDING OF FIRST GRADE STUDENTS

DATE: 1970-1972

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Mini-Grant Recipient(s)

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CS 000 705

I. THE DETECTION AND REMEDIATION OF DEFICIENCIES IN VERBAL UNDERSTANDING OF THE FIRST GRADE STUDENT

II. THE PROBLEM

A. The Students: The learners involved in this project were 55 first year students at Seventh Street and Glenview Elementary schools in the North Little Rock Special School District. The majority of these children live in low socio-economic neighborhoods and have not had day care or Headstart experience. Many of these students have never been away from their neighborhoods and have not seen or done many of the things described and illustrated in their reading materials at school.

All of the children are Negro, except for three whites, and very few of the 55 were given high rating on the Macmillian Reading Readiness Test in September. Since these children were in regular classes in the district, they had the same teacher each day and the same curricular materials as all other first year students in the system.

B. The Problem: While individual differences in early intellectual development have been recognized, it has been generally assumed that the young child who enters school for the first time is able to understand what the teacher is saying. Research has shown that this assumption is not always justified. Some children do not understand fundamental concepts of space, quantity, time and other concepts frequently found in preschool and primary instructional materials. For example, in

one of the schools tested for this project, not one child in a class of sixteen knew what the ordinal "third" meant. In another class, less than half the children could indicate the area "below" a pictured table. Such a lack of understanding is a formidable barrier to the child's success in school.

This problem has particular significance for the first grade children in the target area. These children have limited experience and undeveloped intelligance. Along with these, we may also add that they might also have low self-concept. Although the lack of understanding of fundamental concepts is not limited to any one socio-economic group, children having disadvantaged backgrounds seem to represent a higher percentage of children with deficiencies in verbal understanding. Children who start out behind tend to stay behind and the gap between good and poor achievers becomes wider and wider. The effects of deficiencies at the beginning of school years appear to be cumulative if not corrected.

The Iowa Test of Basic Skills is used each fall in the North Little Rock Special School District for grades 3-4-5-6. The schools in the target area for this proposed project are always in the lowest percentile of each subtest, using both the national and local norms. The Macmillian Reading Test is another standardized instrument used in the district and it also shows the target schools to be the lowest rated in the district. As another criterion, the compared scores from the

Kuhlman-Anderson test given to second graders and the Otis given to fourth and sixth graders also point to the fact that the learners from the target schools are victims of having underdeveloped intelligence. (See Appendix A for a review of related literature.)

III. PROGRAM FOR INSTRUCTION

A. Behavioral Objectives

1. The learner will develop a positive attitude toward himself, his peers, his teacher and his counselor as measured by his responses to them through observations by the staff members.
2. The learner will be able to demonstrate his knowledge of basic concepts by following verbal instruction from the teacher.
3. The learner will be able to construct instructions verbally based upon his knowledge of basic concepts as observed by the teacher.
4. The learner will be able to construct descriptions verbally based on his knowledge of basic concepts as measured by teacher observations.
5. Students in Experimental Group I, receiving reading instruction, supplemented with new curriculum and special counseling to teach basic concepts related to self-concept, space, time, and quantity, will be able to increase their knowledge of

basic concepts more than a control group (Group III) as measured by pre- and post-tests with the Boehm Test of Basic Concepts.

6. Students in Experimental Group II, receiving reading instruction supplemented with new curriculum and special counseling to teach basic concepts related to self-concept, space, time, and quantity as in Objective No. 5, with field trips added, will be able to increase their knowledge of basic concepts more than a control group (Group III), as measured by pre- and post-tests with the Boehm Test of Basic Concepts.
7. Students in Experimental Group II, receiving reading instruction supplemented with new curriculum and special counseling to teach basic concepts related to self-concept, space, time, and quantity, will be able to increase their knowledge of basic concepts more than students in Experimental Group I, as measured by pre- and post-tests with the Boehm Test of Basic Concepts.
8. The learner will demonstrate an increased knowledge of basic concepts which are most frequently lacking as measured by a test-retest instrument administered by the counselor.

IV. STRATEGIES

This project was designed to provide the learners with tools for successful learning experiences. During the fourth week of school the students were given the Boehm Test of Basic Concepts (Psychological

Corporation, 304 East 45th Street, New York 10017). This test measured the children's knowledge of concepts of time, space, quantity and others considered necessary for reading skill during the primary years. The test provided an inventory of concepts that the whole class was weak in; it also provided a list of the children and their individual concept weaknesses. The enrichment program of this project was designed to strengthen these weaknesses without actually training children on the test items. Remediation was done with reference to the children's experiences, environment and the material in first grade reading curriculum. The BTBC was also used as the post-training measure of mastery and was administered close to the end of the school year.

The 55 children were in two schools and three different classrooms. For identification purposes, these three groups were labeled as the Control and Experimental I groups (Seventh Street School) and the Experimental II groups (Glenview School). The groups were treated as follows:

Control: BTBC was administered at the beginning and end of the research period (October-June). The teacher used materials and methods usually found in the first grade classroom in this district. She did not receive an interpretation of the test results or any assistance from the counselor concerning this project.

Experimental I: These children were tested in October and re-tested in June with the BTBC. The counselor provided the teacher with an interpretation of the test results in October and the teacher used this information as a guide for the remedial instruction. The counselor assisted the teacher in the program both with the whole class once a week and with children (individually and in small groups) according to their needs as indicated by test interpretation. Filmstrips and other media was used with these children to help strengthen their weaknesses in concept knowledge.

Experimental II: This group was tested and re-tested like the other two groups. This was the only part of the program that was a constant factor. This class was also provided with the same enrichment materials and counselor services as Experimental I was. However, an additional factor was used with this group--these children were taken on field trips that were planned to reinforce deficiencies diagnosed by the BTBC and also related to situations illustrated in their classroom reading materials.

The BTBC tests for a knowledge of 50 concepts, therefore, a perfect score would be 50. After the initial testing in October, the test results of the three groups were:

Control average group score: 38.5

Experimental I average group score: 36.2

Experimental II average group score: 28.3

The following is a list of the concepts given to the teacher of Experimental II and the percentage of her class that knew them:

third--0%	left--26%	second--37%
in order--0%	below--16%	never--37%
skip--5%	medium--21%	above--47%
pair--5%	right--32%	different--47%
least--16%	always--26%	side--58%
	not first or last--16%	other--16%

Materials for the two experimental groups were chosen with several ideas in mind. Since many of the children in the project were from homes that had not provided them with play equipment, they had little opportunity from which to learn relationships, perceptions and skills which would contribute to their school readiness. Therefore, the first materials bought for this program were manipulative in order to help the children expand their horizon and learning processes. Some of these materials, their functions and costs are as follows:

Playskool Workbench	$4.00	Teaches handling tools, threading, develops muscle coordination, space concepts.
Jumbo Blocks (16/set)	6.00	Stimulates imagination while building. Teaches space and quantity concepts.

Creative Geometric Blocks	2.69	Teaches matching colors and shapes, space, quantity and time concepts.
Jack-in-box	3.25	Teaches space concepts.
Formfitter Block Box	1.50	Teaches the classification of patterns and shape matching.

These items are attractive to children, easy to clean and store and are inexpensive. They are practically indestructible and can be used for many years. Groups I and II were provided with these materials and the children were allowed to play with them after their regular assignments were completed. Several children could use the same item at the same time and thus stimulate imagination with group play.

The child's interaction with his peers is a determining factor in developing his personal identity. Since the child's positive self-concepts is essential to his success in learning, he needs an opportunity to interact with peers in natural, voluntary ways. Yet, language development becomes more objective and less egocentric the older a child gets. Role playing is one technique that allows the child to externalize his own self and stimulate his creative talents. The materials used in this project to build self-concept and encourage group interaction are listed below along with the approximate cost and brief description of their purposes:

Full length mirror, wall mounted: Approx. $9.00. The mirror helps the child understand his mirror image and become more

aware of his physical appearance. Mounting the mirror near the classroom door helps to improve health habits and physical appearance.

Peabody Language Development Kit Level #1: Approx. $55.00. This self-contained collection of lessons and materials are designed to stimulate overall oral language and intellectual development. The excercises concentrate on the cognitive processes involving say and do techniques. Hand puppets cause spontaneous reactions from most children. Magnetic tapes contain songs and stories. "The Three Pigs" and "The Three Bears" were two stories in this kit on the tape. Both groups had a Peabody Kit. (American Guidance Service, Circle Pines, Minnesota).

Puppet Playmates: Each set, approx. $5.95. This allows the child to become a puppet. It encourages self-expression and stimulates imaginative role-playing. Two sets were used interchangeably between groups I and II--"The Three Pigs" and "The Three Bears". The teacher would read the story and/or play the story on the tapes and the children would all take turns interpreting the roles. Good to use with the mirror. (Instructo)

Story Kit, Flannel board teaching aid: Approx. $2.95. This kit allows the presentation of the two above stories on the

flannel board. It promotes imaginative story telling the understanding of sequences and vocabulary building. The children can display many variations on the original themes by using this aid and the puppet playmates. Kit used by both groups. (Milton Bradley).

Filmstrips--Each film, approx. $5.95. "The Three Bears", "The Three Pigs" and "The Three Bears Visit Goldilocks" were used with the tapes and other aids to further motivate the children. Only two basic stories were used in this project but the materials were either duplicated or interchanged between the two groups so that all children had the same effects. These stories were easy to dramatize and improvise upon and enabled the children to more easily comprehend concepts of space, time and quantity. They also were helpful in teaching the children wholesome solutions to many problems encountered by children. (SVE)

Filmstrip--Each kit, approx. $39.00. The "Be Kind Stories" Kit contains four filmstrips and record that tell stories of kindness and appreciation. The series is designed to develop imagination and emphasizes the need of more thoughtfulness of others. Re-showing the films without playing the records allows the children to re-tell the plot in their own words. Included in the kit are coloring books featuring key scenes

from the stories shown on the strips. Therefore the stories are remembered and reinforced as the child colors the pictures. Each child in groups I and II had his own color book. (Eyegate).

These items were available to both groups and were used to enrich the regular curriculum at the teacher's discretion. Both teachers of the I and II groups found that using the Peabody Kit was effective if used at the end of the day as it helps the children's interest and participation was good. The filmstrips were used by the teachers and by the counselor once a week. These filmstrips are quite good in establishing value systems in young children and they have no difficulty in relating to the characters in the stories.

All of these materials were valuable in building the child's self-confidence, helping him control personal feelings and developing interpersonal relationships. However, to help the child strengthen his concept knowledge, the following visual aids were used:

Filmstrip--Aprox. $49.00. "Developing Cognitive Skills in Young Learners". This series promotes development in fundamental intellectual concepts. It is of particular help with children who need reinforcement of lingual and experiential backgrounds by providing greater exposure to the kinds of language experiences which emphasize concept ordering, selecting and logical thinking. The series was effectively

integrated with the teachers own programs and the content strongly supported the weaknesses diagnosed by the BTBC. The set of 7 strips were used interchangeably by the teachers of groups I and II with their whole classes. The strips were used by the counselor with small groups of children that needed special help as indicated by the test. (Educational Activities, Inc.)

"Gateway to Good Reading".** This program consists of 40 lessons divided into two-20 cassette units. The two units are designed to develop areas of auditory discrimination and visual perception. The cassettes present clear instructions for the student to complete excercises in his own response booklet. One booklet per child per lesson is in the program. The emphasis is on left-right progression and concept knowledge, listening skills and eye-motor coordination. The teachers used the lessons interchangeably. Sometimes the lesson was presented to the whole class and other times the children completed their work sheets in groups of 8 using headphones and the cassette player. The use of headphones was particularly good when a child needed to repeat a lesson or to make one up due to an absence.

**Gateway to Good Reading is published by Imperial International Learning, Inc. The price for each 20-lesson unit is $179.00 or $339.00 for both units (40 lessons) including 30 student response booklets and manuals.

Using headphones in groups of 8 or less had a great deal of appeal to the children and since the lessons only lasted about 11 to 15 minutes, their attention was held. This type of student participation and instruction was popular with the teachers because it allowed them to work with two groups of children in their classrooms at the same time. The response booklets are easy to check and the manual gives practical follow-up ideas for the teacher to use. A sample of the pupil response booklet for one of the lessons is in the Appendix.

Enough carpet samples 12"x18" were gotten for each child in groups I and II to have one. These were in different colors and were used as individual flannel boards by the children. These samples are very inexpensive and are sometimes free if the product is discontinued. Groups I and II were furnished with an assortment of flocked letters, figures and geometric shapes. Concepts of space quantity were strengthened by the children working at their desks while the teacher worked at the big flannel board before the whole class. The teachers were encouraged to use bulletin board accessories and any other visual aids they might have added to their own store of materials to reinforce the teaching of basic concepts. All of the materials furnished by this project were used when and where each teacher desired; however, the counselor demonstrated the use of the items to the teachers at

the first of the program and suggested modifications for their uses. (See Appendix B for listing of all materials.)

Field trips are proving invaluable in teaching communication skills because they not only expand knowledge but also offer multistimulating possibilities and many-faceted avenues for value-building. Planning the trip, proper dress and safe conduct are just as important to the success of a trip as the trip itself.

Examination of the curriculum reading materials used by first year students in the North Little Rock Special School District suggested several field trips for this project. The idea was to expose the children to situations that they might use as a frame of reference when working on the reading readiness books in their classes. These trips were also planned toward reinforcing their weakest concept areas as diagnosed by the BTBC. Only the Experimental group II was taken on the field trips which are described as follows:

(1) North Little Rock Police Department Building and the U.S. Post Office: These two places are just across the street from each other so both were visited at the same trip. Transportation was furnished by the principal, teacher and counselor, in their private cars. Previous arrangements were made with proper authorities at these two agencies and they were very gracious in their cooperation. The day before taking the trip, a filmstrip, "Men in Blue, Policemen in Action", was shown to the children. So many children have come to regard the policeman as a threat or an object of ridicule, that

in addition to the other objectives of this project, it certainly did no harm to try to portray the policeman in another role to the children. Fortunately, most of the theme of the filmstrip was reinforced on our tour of the Police Building. We saw the officers as helpful, courteous and friendly. Many of the children had heard about the jail, the courtroom and other parts of the building from friends or relatives who had been there on official business and they had a lot of questions to ask the guide. All of the children had a chance to be put in a cell with the door locked, to see the kitchen where the prisoner's food was prepared, and then to examine a police car and motorcycle. The post office experience was also good as we were taken "in the back" and shown how mail was processed from mailing to delivery. The children were shown how mail reached their substation for final delivery to their homes. Follow up for this trip was through art, experience charts and letter dictated to the teacher thanking the police chief and postmaster for their hospitality.

(2) Jackson Cookie Company: Transportation for this trip was also furnished by the principal, teacher and counselor. The trip was prearranged with the company and was very efficiently carried out. It lasted about 20 minutes, during which time we were shown the whole process of mixing, baking and packaging cookies. At the end of the tour, our guide presented everyone with a brochure about the process and a package of cookies apiece. One adult was in charge of about 6 children on these trips and took advantage of each opportunity to relate some of the concepts tested to observations

they had made. This trip was follow up by taking the brochure and letting the children recall and discuss. A letter of thanks was sent to the company.

(3) Shackleford's Dairy: This is the only dairy in Central Arkansas where the children could see the actual milking, processing and bottling all in the same building. A bus was hired to take the group on this trip as it was about an hour's drive from the school. The children were taken through the dairy in groups of 9 as prearranged with the owner. The milking barn was first and the children saw the cow's being milked; the milk flowing through transparent glass pipes from the cows into the cooling tanks; then to the pasteurizing and homogenizing rooms; and then to the bottling room. The children were given a demonstration of how the cardboard milk cartons are assembled and each child was given an empty carton for a "bank" and a sample of chocolate milk. This trip was excellent for teaching relationships of size, quantities and ordinals.

(4) Shrine Circus: The children were taken from the school yard to the circus on a Saturday morning by chartered bus. They were escorted by the teacher, counselor and a volunteer aide. The tickets to this performance can be had for free, and it can be a valuable experience. Each child was given a small box of Crackjacks. These were bought by the counselor before the trip because if some children brought money for refreshments and other children did not, then we would have hard feelings, so all children were asked not to

bring any money. For a week prior to this trip, the children looked at library books about the circus, made a bulletin board with a circus theme and worked with a flannel board and teaching aid set with circus figures. Word association with the figures and circus terminology was concentrated on. Apparently some of this made an impression because during the post-testing in June, the concept "center" was related by one child to "where the elephant stood on the box at the circus."

(5) Longworth Restaurant: Several illustrations in pre-primers inspired this trip. For a week prior to this trip a film was shown to children instructing them in table manners. The teacher also brought a place setting of china and silver to school so the children could practice manners. The escorts on this trip were the principal, the teacher and the counselor and transportation was by city bus. Each child was given a plastic "baggie" that contained a dollar bill and four dimes. It was explained that the dimes were for bus fare--two dimes to go to town and two dimes to come back to school. The dollar was for their lunch. Prior arrangements with the restaurant manager was for lunch to be a hamburger, french fries and a drink with dessert optional. Any money the children had left over they could keep. This forced a choice between buying dessert and taking money home. Since this restaurant is on the 24th floor of the Worthen Building, the children could see where they were going to have lunch from a sidewalk viewpoint. The elevator ride was a first for many of the children, and since it was a silent,

smooth performance, the children didn't realize we had even gone up when we reached the 24th floor. The teacher had used some pre-primer materials to try to prepare the children for the elevator experience, but the real ride of course could not compare with the illustration in their texts. Their training in table manners was worthwhile as their conduct was superb. In fact, other patrons of the restaurant commented on how well-behaved the children were.

The concepts of size and space were observed and compared by the children as one child remarked as "we looked out the 24th story window, "You can see the whole world from up here!"; and some little boy compared the size of cars to "Hotwheels" and "Johnny Lighting" toys. One girl said the view looking down on the street 240 feet below was like "the way it looks to a bird". Part of the follow up for this trip was posters that the children illustrated. One poster was of a huge building and at its base was a bus with all of the passengers as tiny figures carefully detailed. Each child paid the cashier for his food and after they had eaten most of it, they were given the chance to buy a dessert. Out of the 18 that were on the trip, 16 bought ice cream but 2 elected to keep their money.

(6) Fair Park Zoo: This last trip was by chartered bus, and the escorts were the teacher and counselor. Pre-planning involved naming animals, studying pictures of animals, discussing the care and feeding of animals. The group walked around the zoo pausing at cages and observing the animals. At lunchtime, the

group sat at picnic tables near the concession stand and were served hamburger, potato chips, cokes and candy bars that had been pre-ordered. A miniature train ride was in operation so the groups rode on it twice. A bag of peanuts was given to each child before visiting the monkey house and the bird sanctuary. The children observed the safety rules set for them by the teacher. All children were neatly dressed and well behaved indicating that their self-concepts were being influenced positively. The zoo is a marvelous place to see the concepts of space, quantity and other categories in operation. At no time during any field trip or at any other place in this project was the actual items on the test "taught" as they are seen in the test text.

V. EVALUATION

A. Measurement: Post testing for this project was completed June 4 with the Boehm Test of Basic Concepts. The testing was administered by the counselor and monitored by the teachers of the groups. As we were attempting to compare the progress of groups treated differently in the remediation of concept weakness, the BTBC was as valid a test as we could get. (See Appendix C for Calendar of Events which schedules testing and reporting.) As mentioned in the BTBC manual, the greatest increases in average scores from beginning of the year to midyear tend to occur in kindergarten and grade 1 and at the lower socioeconomic levels. The groups that score lowest on the test in the

fall and (therefore have the most to learn) tend to make the largest gains in the mastery of concepts over the course of approximately a half-year. This was the approximate time of this study and the manual information was correct, but a comparison of the group scores show the different rates of change indicate different influences. The test scores gave two view points for consideration: (1) a comparison between groups treated differently and a control group, (2) a comparison of the pre-test results with the post-test results with a single group. The test results also revealed individual progress or regression of the participants, although this was not relevant to this study. The following chart shows the difference between the pre and post-test scores for the three groups. The first column of figures is the mean score on the whole test, while the next four columns show the mean number correct in each of the four context categories--miscellaneous, space, quantity and time.

Table 1: Pre- and Post-Test Mean Scores from the Boehm Test of Basic Concepts*

This chart shows the progress of the three groups used in the study. The figures are the mean number answered correctly.

Group	No. Tested	All items on BTBC	CONTEXT CATEGORIES			
			MISC.	SPACE	QUANTITY	TIME
Exper. I						
Pre-	18	36.2	3.5	18.5	11.95	2.75
Post	20	43.1	4.7	19.1	15.5	3.5
Difference		±6.9	±1.2	±0.6	±3.55	±.75
Exper. II						
Pre-	19	28.3	1.7	14.85	9.89	1.84
Post	19	43.0	4.2	20.31	14.90	3.52
Difference		±14.7	±2.5	±5.46	±5.01	±1.68
Control						
Pre-	19	38.5	3.7	19.2	11.5	3.0
Post	17	41.4	4.2	19.8	13.7	3.7
Difference		2.9	±0.5	±0.6	±2.2	±0.7

*The mean scores represent the number of test items answered correctly.

For further analysis of the test results, tables have been prepared showing how often each score occurred. This type of presentation of statistics is frequency distribution and it shows the test scores in each group of threes and how many children had scores in this "interval" of scores. In order to identify the typical score, we pick the interval of scores that occurs most frequently. When using frequency distribution tables, this type of information is called the modal interval.

The table which follows shows the frequency distribution of pre-post test scores for the groups of pupils in this study.

Table 2: Frequency of Pre and Post-test Scores from the Boehm Test of Basic Concepts

Test Score Intervals	Experimental I		Experimental II		Control	
	Pre	Post	Pre	Post	re	Post
48-50	0	4	0	0	0	0
45-47	1	2	0	9	1	4
42-44	1	5	0	4	5	4
39-41	3	5	1	3	4	5
36-38	5	1	0	2	4	3
33-35	3	1	5	1	4	1
30-32	0	0	3	0	1	0
27-29	1	0	4	0	0	0
24-26	2	0	2	0	0	0
21-23	0	0	2	0	0	0
18-20	1	0	1	0	0	0
15-17	0	0	0	0	0	0
12-14	0	0	1	0	0	0
0-11	0	0	0	0	0	0
Modal Interval	36-38	39-42	33-35	45-47	42-44	39-41

This compact representation of the test results shows the modal interval was raised by the two experimental groups and lowered by the control group. This means that more children in groups I and II scored higher on the post-test than did the children in the control group. In fact, more children in the control group scored lower on the post-test than they did on the pre-test.

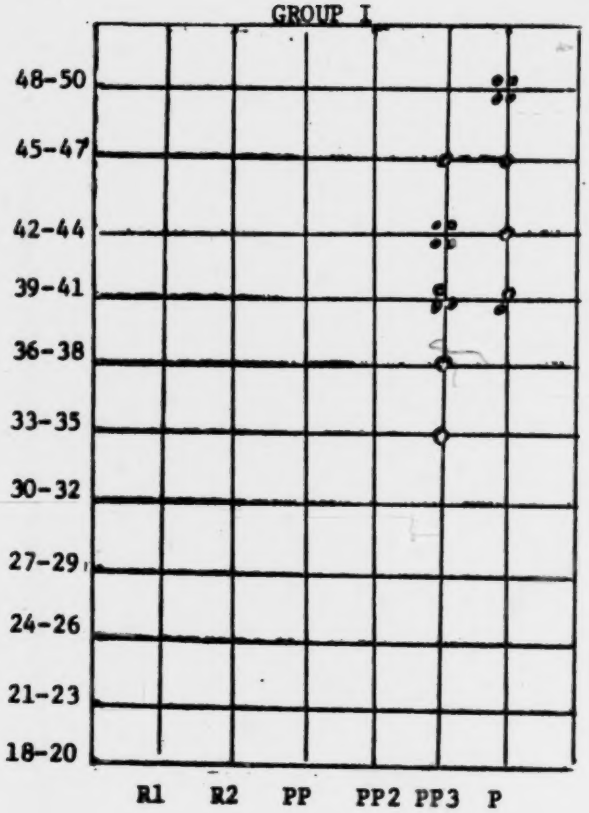
The North Little Rock Special School District has the classroom teacher give the MacMillian Reading Readiness Test to all first year students in early fall. The results are prognostic and used for grouping. Throughout the year, MacMillian Mastery Tests are also given to the children after they complete certain books or phases in the reading program. Unfortunately none of the teachers in this study recorded these MacMillian test results in a manner suitable for research purposes. No figures from any instrument besides the BTBC were available to allow a data analysis using correlation of coefficients.

However, the reading level of the children was used with the BTBC scores in scattergrams. (See the following page.) A close relationship was found between the two factors. The reading level was obtained from the children's reading cards in their folders and indicates the reader the child was using when school dismissed in June.

Using the post-test score intervals from Table 2 as one factor and the reader level as the other factor, we see that the children who were in the upper test score intervals were also in the higher reader levels; and the number of children in the experimental groups that reached higher reading levels surpassed the number of children in the control group.

SCATTERGRAMS

GROUP I



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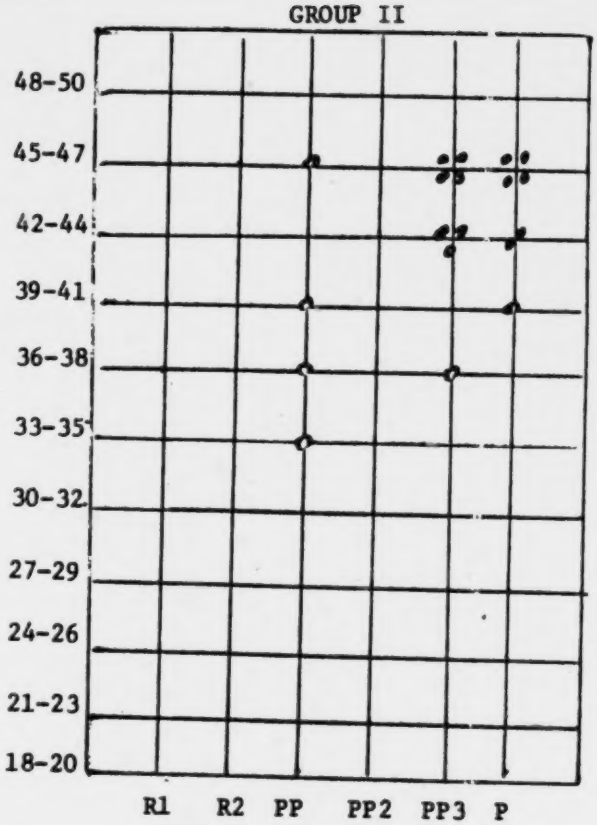

GROUP III

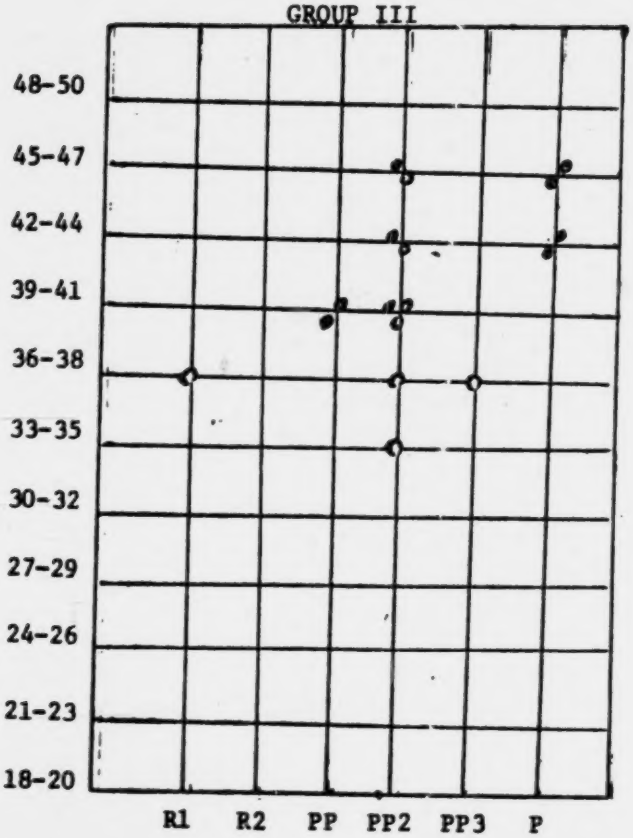

TABLE 3: Figures represtnt the % of children in group who knew concept. Starred figures indicate the only regression was in Control.

CONCEPT	EXP. I		EXP. II		CONTROL	
	PRE	POST	PRE	POST	PRE	POST
Pair	5	33	5	17	16	35
Skip	40	94	5	72	26	82
In Order	20	39	0	44	32	65
Third	30	72	0	47	37	59
Least	30	33	16	28	42	18*
Below	35	83	16	100	95	94*
Not First or Last	65	100	16	100	79	76*
Other	80	100	16	89	79	76*
Medium-sized	35	61	21	100	26	53
Left	75	100	26	79	63	41*

B. Analysis of the Objectives

Examination of the test data indicates to some extent the success of this study. For a more adequate evaluation, an analysis of the behavioral objectives showed that these objectives were satisfactorily achieved.

OBJECTIVE NO. 1: The learner will develop a positive attitude toward himself, his peers, his teacher and his counselor as measured by his responses to them through observations by the staff members.

ANALYSIS: At the beginning of this study the learners were somewhat shy. Many of them did not make a good appearance physically, and seemed to have little pride. Encouragement and sincere compliments from the staff members, the wall mirror and the manipulative toys helped these children to develop a more positive self-image. Their appearance improved; their personalities became more socially acceptable; and they showed more self-confidence in everything they did. These improvements were noted by the teachers and the counselor during the study.

OBJECTIVE NO. 2: The learner will be able to demonstrate his knowledge of basic concepts by following verbal instruction from the teacher.

ANALYSIS: The analysis of this objective was made possible by the use of the Gateway to Good Reading multimedia learning tool. The narrator on these cassettes instructs the learner to complete exercise in a workbooklet. Examination of the work the children did in these "response booklets" reveals quite clearly that they were able to follow verbal instruction.

OBJECTIVE NO. 3: The learner will be able to construct instructions verbally based upon his knowledge of basic concepts as observed by the teacher.

ANALYSIS: The teachers reported that as they observed the children using the manipulative materials, the children improved in their ability to give instructions to their peers. This was over a period of time and primarily centered around their building things in group play.

OBJECTIVE NO. 4: The learner will be able to construct descriptions verbally based on his knowledge of basic concepts as measured by teacher observation.

ANALYSIS: To illustrate how this objective was accomplished, an example will be taken from one group. Four children from group II who had the lowest raw scores on the BTBC from their group, came once a week to the counselor. During these sessions the children were closely observed in play-work situations. One time they created pictures with geometric shapes on a magnetic board and were quite capable of describing them. One child who ranked lower than the others, described his picture of a rocket going to the moon. His ability to do this as well as he did was convincing evidence that this objective had been attained.

C. Conclusions and Recommendations

After a study of the analyses of the behavioral objectives and the examination of the other data, it seems evident that the child who is provided with opportunities to:

1. Develop a positive self-image,
2. Become familiar with the meaning of basic concepts used in ordinary conversation, and
3. Have experiences that will give a foundation to build knowledge and understanding upon,

can have a much greater success in learning than the child who does not have these opportunities.

Based on my experience in conducting this project and after analyzing the data, I wish to make the following recommendations:

1. That all first year students be tested with the Boehm Test of Basic Concepts or a similar test in order to identify their weaknesses in concept knowledge. Although this study was done in a socio-economically identifiable neighborhood, there is evidence that children from all levels and cultures need some remediation in this area. The child that cannot understand his teacher's directions cannot perform tasks as he is expected to. This child then experiences failure instead of success.
2. That the child be encouraged in developing a positive self-image. He should leave school each day knowing that he had succeded at something. He must never be given tasks to do unless he understands what is expected of him. He must recieve encouragement for his achievements and be allowed to correct his errors, but NEVER humiliated.

3. The child should be provided with experiences that will give him a better understanding of situations that he will meet in his texts. The teacher can plan field trips at a minimum cost. With friends to help in transportation, the cost can be nil. For more elaborate trips needing money for food or admission tickets, the children could plan to save ahead toward this as a goal. Thus a lesson in economics could be put into practice. School districts should provide teachers with a field trip brochure. It would give costs, time involved, how to arrange and other helps. This would be excellent for teachers new to the community.

4. The teacher must NEVER stop trying to raise the children's level of aspiration. If possible, the teacher should be provided with teaching aids and adequate supervision so that the classroom activities will be an interesting challenge to the learner. In this study, children used earphones and followed instructions given them from a cassette; also teachers were given puppets, filmstrips and other aids to help her help the child use his imagination and develop his creative talents. A creative teacher, however, can improvise many ordinary items for this same purpose, and will use materials provided by the school district to full advantage. When you can raise a child's level of aspiration, you also raise his IQ.

5. The school districts should not be so bound up by conventional educational programs and methods that it would not encourage teachers to try innovative ideas.

6. The teachers should have opportunity for in-service training participation with emphasis on self-improvement. This is the best technique to date, of letting staff members "see themselves as others see them" with a chance to do their own critical analysis and set their own improvement goals.
7. Teachers should be taught how to write behavioral objectives. This would be a great help to teachers in establishing their own guidelines for their own classes. It might also give the teacher a sense of security as we enter the Age of Accountability.

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APPENDIX

APPENDIX A

Related Literature

Educators agree that how a person sees himself is basic to success not only in reading but in learning anything. In research at the University of Florida, it was found that a child's self-concept is even a better predictor of his success in reading than his intelligence test scores (Combs, 1967). We are also told that curricular decisions should be made with the child's developmental stages in mind; pupils should have many opportunities to perform real actions instead of just reading about it or being told about it; they should be allowed to work in groups with activities that free them from their egocentrism and cause them to interact (Piaget, 1964). Since the individual's self-concept development is in relation to others in their environment, the teacher's role as well as the attitudes of all school personnel is of upmost importance in determining the learner's progress. It is the teacher who sets the psychological climate in the learner's school life; this is accomplished positively by letting the child experience success in school each day.

If these children to be guided in their development of the communication skills, we must begin with communication that lies within their experiences; nor can we ignore the fact that emotions influence learning and are related to the motivation of learning. The emphasis upon cognitive objectives must almost assuredly depend upon the need for objectives within the affective domain (Dollard, 1950.)

It is characteristic for children living within the target area not to have a positive attitude toward the value of an education becuase they have often not experienced success at school or in their community. The elementary school is one place where we recognize the importance of personal relationships in the development of the individual. But with increasing use of programmed teaching and teaching machines, even though there is emphasis upon the individual in terms of his rate of learning, the teaching process may become more impersonal (Patterson, 1969).

Glasser and other critics of public education agree that the school is to blame if the child does not develop an affection for learning. It is natural for the child to resist the arbitrary demands of a strange adult, especially when certain adhesive forces (identification and the motive to maintain an affectionate tie to an adult) are not strong in the school context. Children place a premium on a skill if possessing it either makes them more like an admired person or brings them affection, praise or promise of tangible reward from the admired model. This dynamic is usually reserved for the parent-child relationship but could be cultivated in a classroom situation (Kagan, 1968).

For a child to experience success in learning, it is imperative that he understand what he is expected to do; in this project we identified the basic concepts of space, time and quantity that children misunderstood or did not know. We planned special help for these children by devising situations and opportunities for them to learn the concepts that they did not know.

If a child has deficiencies that could be detected and remedied in the first year of his school life, it would prevent reading problems from developing later. Readers must be able to visualize and conceptualize and they must be able to relate what they are learning to what they already know. An inability to understand concepts ranks as a major obstacle to learning (Englemanr, 1957).

APPENDIX B

INSTRUCTIONAL MATERIALS FOR MINI-GRANT

NORTH LITTLE ROCK - LINCOLN

Eyegate House, Inc.
146-01 Archer Avenue
Jamaica, New York 11435

Quantity	Description
1 set	Complete set of 4 Color Filmstrips with 2 records, teaching manual and 29 color books "Be Kind"
2 sets	Color books
10	Sets of 10 Coloring Workbooks

Gene Swepston Company
2324 Durwood Road - Box 3376
Little Rock, Arkansas

Quantity	Description
	Developing Cognitive Skills in Young Learners (Primary) 7 Color Filmstrips

School Products Co.
P.O. Box 1447
Little Rock, Arkansas 72203

Quantity	Description
1 pk.	7822, Felt Tape
1 set	777, Counting kittens
1	8, Flannel Board (Black)
1	KR41, Walk-On Letter Line
1	KA30, Walk-On Number Line
3	2300, Flocked letters
1	1101, Puppet Playmates (3 Bears)
2	301, Giant Block Set
2	7601, Arithmetic Sticks
1	7835, Story Kit
1	7522, Space Relationship
1	7808, Kindergarten Kit
1	1102, Puppet Playmates (3 Pigs)

Capitol Jewelry & Distributing Co., Inc.
823 Main Street
Little Rock, Arkansas 72201

Quantity	Description
2	#740 x 155, Form Fitters
2	#300, Work Benches
2	764 x 359, Tea Sets
2	#771, Fisher Creative Blocks
2	3100A, Find & Fit Puzzles
2	#138 x 399, Jack-in-box
2	Farms

Katz Drug Company
27 and Main Streets
North Little Rock, Arkansas

Quantity	Description
2	Full - door mirrors (Metal Framed)

American Guidance Service, Inc.
Publisher's Building
Circle Pines, Minnesota 55014

Quantity	Description
1	C-311 Complete Level #1 Kit (Peabody Language Development Kit)

Mitchell-Bowie Supply Co.
1512 W. 3rd
Little Rock, Arkansas

Quantity	Description
1 set	GATEWAY TO GOOD READING, A reading readiness program of auditory discrimination and visual perception RK1-2(on tapes) 20 - RK-1 Audio Discrimination 20 - RK-2 Visual Perception 30 - Worksheets per tape per teacher First set comes with tapes, see p. 4 Recorder and headsets
40 pkgs.	Imperial Student Response Booklets (pkg. of 30)

Horace A. Illing Bus Lines
Sweet Home, Arkansas 72164

Quantity	Description
	Bus services from Roosevelt Elementary School, NLR, to Shackleford Dairy on Feb. 23, 1971, and return
	Originally billed to: Roosevelt School 19th & Edmonds North Little Rock, Ark.
	Bus services from Roosevelt Elementary School, NLR, to Barton Coliseum on April 3, 1971, and return. (Circus)
	Originally billed to: Roosevelt School 19th & Edmonds North Little Rock, Ark.
	Bus services from Roosevelt Elementary School, NLR, to Fair Park on May 28, 1971 and return (Zoo)
	Originally billed to: Rosevelt School 19th & Edmonds North Little Rock, Ark.

Mrs. Jeanne LaGrossa
33 Pine Tree Loop
North Little Rock, Arkansas 72116

Quantity	Description
	Reimbursement for Mini-Grant activity
22	Lunches @ 1.00 ea. (Meal)
19	children's round trip bus fare @ 40¢ ea.
3	adult's round trip bus fare @ 60¢ ea.
	Tip
3	circus tickets for adults @ 2.00 ea.
	Reimbursement for Mini-Grant Activity
20	Lunches @ 1.00 ea. (18 children, 2 adults)
2	train rides for 20 persons @ 25¢ ea.
20	bags of peanuts @ 15¢ ea.

The Psychological Corporation
304 East 45th Street
New York, New York 10017

Quantity	Description
3 pkg.	Form A (30 copies to a pkg.) Boehm Tests of Basic Concepts
3 pkg.	Form B (30 copies to a pkg.) Boehm Tests of Basic Concepts

CALENDAR OF EVENTS: NORTH LITTLE ROCK SCHOOL DISTRICT (Seventh Street & Glenview Elementary Schools).

Mrs. Jeanne LaGrossa: "The Detection and Remediation of Deficiencies in Verbal Understanding of the First Grade Student"

Target Date	Events: Activities, Materials, & Facilities	Person(s) Responsible	Completion Date
9/71	Pre-test: Administer the BOEHM TEST OF BASIC CONCEPTS, Form A Experimental Groups I, II, and Control Group	LaGrossa	9/08/71
5/72	Post-test: Administer the BOEHM TEST OF BASIC CONCEPTS, Form B	LaGrossa	
6/1/72	FINAL REPORT: Revise the strategies, answer the objectives, state conclusions and recommendations	LaGrossa	

APPENDIX C

A D D E N D U M

The addendum includes evaluation of the project during its second year of operation (1971-1972).

ANALYSIS OF THE OBJECTIVES

1971-1972

OBJECTIVES NO. 1-4: The analysis of objectives one through four parallels the results of the findings for 1970-1071.

OBJECTIVE NO. 5: Students in Experimental Group I, receiving reading instruction, supplemented with new curriculum and special counseling to teach basic concepts related to self-concept, space, time, and quantity, will be able to increase their knowledge of basic concepts more than a control group (Group III) as measured by pre- and post-tests with the Boehm Test of Basic Concepts.

ANALYSIS: An analysis of Table 1 finds that Experimental Group I gained 10.0 points between pre- and post-testing while the Control group gained only 5.8 points. There is every indication that the experimental group outperformed the control group. The objective is assessed as being achieved.

OBJECTIVE NO. 6: Students in Experimental Group II, receiving reading instruction supplemented with new curriculum and special counseling to teach basic concepts related to self-concept, space, time, and quantity as in Objective No. 5, with field trips added, will be able to increase their knowledge of basic concepts more than a control group (Group III), as measured by pre- and post-tests with the Boehm Test of Basic Concepts.

ANALYSIS: Analysis of Table A finds that Experimental Group II gained 14.8 points between pre- and post-testing. The control group gained only 5.8 points. While the control group scored somewhat better on the pre-test, there is every indication that the experimental group outperformed the control group since it gained 9.0 points more. The objective is assessed as being achieved.

OBJECTIVE NO. 7: Students in Experimental Group II, receiving reading instruction supplemented with new curriculum and special counseling to teach basic concepts related to self-concept, space, time, and quantity, will be able to increase their knowledge of basic concepts more than students in Experimental Group I, as measured by pre- and post-tests with the Boehm Test of Basic Concepts.

ANALYSIS: Analysis of the data in Table A finds that Experimental Group II gained 14.8 points while Experimental Group I gained only 10.0 points. Experimental Group II gained nearly 5.0 points more than Experimental Group I which indicates special counseling does make a difference. The objective is assessed as being achieved.

OBJECTIVE NO. 8: The learner will demonstrate an increased knowledge of basic concepts which are most frequently lacking as measured by a test-retest instrument administered by the counselor.

ANALYSIS: An analysis of Table B finds with few exceptions, that there was much improvement between pre- and post-testing for those items most frequently missed. The objective is assessed as being partially achieved.

TABLE A

Seventh Street Elementary School
Basic Concepts
Summary of Mean Scores

Group	No. Tested	All items on BTBC	Context Categories			
			Misc	Space	Quantity	Time
Exp I						
Pre	19	31.1	3.4	15.5	10.1	2.2
Post	16	41.1	4.2	20.4	12.8	3.8
Difference		+10.0	+0.8	+4.9	+2.7	+1.6
Exp II						
Pre	16	25.7	1.6	13.7	8.4	1.9
Post	13	40.5	4.5	19.2	13.5	3.3
Difference		+14.8	+2.9	+5.5	+5.1	+1.4
Cont I						
Pre	24	35.0	3.3	18.0	11.2	2.4
Post	19	40.8	4.3	20.5	12.3	3.7
Difference		+5.8	+1.0	+2.5	+1.1	+1.3

Chart showing the progress of the three groups used in the study. The figures are the mean number answered correctly.

TABLE B

Seventh Street Elementary School
Basic Concepts
Summary of Ten Most Frequently
Missed Concepts

Concept	Exp I		Exp II		Cont I	
	Pre	Post	Pre	Post	Pre	Post
As Many			19	77		
Other			13	85		
Not First or Last					29	89
Never					50	89
Below	26	75				
Medium-sized	21	63			21	32
Right	21	88				
Forward	11	94	19	92	46	95
Zero	32	100	19	100		
Pair	16	6*	0	8	29	26*
Skip			0	100	46	79
Equal	26	94	0	85	8	11
In Order	16	38	6	54	29	53
Third	32	38	13	38	42	58
Least	11	0*	13	38	13	47

Figures represent the % of children in group who knew concept.

*Indicates a decrease.